Notes on the nomenclature of three species of Tortricidae

Leif AARVIK

Nyborgveien 19 A, N-1430 Ås, Norway.

Summary

The identities of *Tortrix asseclana* [Denis & Schiffermüller], 1775 and *Tortrix fuligana* [Denis & Schiffermüller], 1775 are discussed. The former is considered to be a senior synonym of the species known as *Cnephasia interjectana* (Haworth, [1811]), and the latter is established in the combination *Pristerognatha fuligana* ([Denis & Schiffermüller], 1775) in the sense of e.g. Razowski (1983). Neotypes of *Tortrix asseclana* [Denis & Schiffermüller] and *Tortrix fuligana* [Denis & Schiffermüller] are designated.

Penthina postremana var. karelica TENGSTRÖM, 1875 in the combination Selenodes karelica (TENGSTRÖM, 1875) stat. nov., comb. nov., is introduced as the valid replacement name for the species known as Froelichia textana (FRÖLICH, 1828).

The purpose of this paper is to stabilize the nomenclature of three European species of Tortricidae. There are still many old names not yet correctly applied to taxa. Until these names are fixed to appropriate species, they threaten nomenclatural stability. Some of these names are perhaps better treated as *nomina oblita* and could be submitted to the International Commission on Zoological Nomenclature for rejection. The names created by Denis & Schiffermüller have often caused confusion. Their collection was lost in fire, and the descriptions are very brief statements making the identification of their species difficult. In the present paper neotypes are designated in order to stabilize the use of two names created by these authors. In addition a case of homonymy is dealt with.

Cnephasia asseclana ([Denis & Schiffermüller], 1775)

Tortrix asseclana [Denis & Schiffermüller], 1775: Ankündung syst. Werkes Schmett. Wienergegend: 131.

Tortrix interjectana HAWORTH, [1811]: Lepid. Br. 3: 464. Sciaphila virgaureana Treitschke, 1835: Schmett. Eur. 10 (3): 89.

Tortrix oleraceana Gibson, 1916: Can. Ent. 48: 373.

The name Tortrix assectana [Denis & Schiffermüller], 1775 has recently been treated as a doubtful synonym of Tortrix interjectana Haworth, [1811] (Bradley et al. 1972: 35, Leraut 1980: 89, Powell 1983: 39). OBRAZISOV (1957: 323) pointed out that the identity of asseclana [DENIS & Schiffermüller] was known to Herrich-Schäffer (1851: 201) who identified it as virgaureana Treitschke, Werneburg (1864: 554) stated that FISCHER VON RÖSLERSTAMM found a specimen of virgaureana identified as asseclana in the collection of Denis & Schiffermüller, However, Werne-BURG (loc. cit.) questioned whether asseclana [Denis & Schiffermüller] was identical with virgaureana. In his opinion the diagnosis of assectana. "braungrauer, weissgefleckter Wickler" did not match virgaureana very well. Nevertheless, this diagnosis does not exclude virgaureana, and the fact that the asseclana specimen in DENIS & SCHIFFERMÜLLER'S collection was identified as virgaureana, is strong evidence in favour of HERRICH-SCHÄFFER'S statement. Consequently the name asseclana should not be treated as a nomen dubium.

HÜBNER [1799] and [1800] figured two different species under the name *Tortrix asseclana*. His fig. 19 [1799] represents *Epiblema similana* ([Denis & Schiffermüller], 1775), and his fig. 194 [1800] represents *Cydia succedana* ([Denis & Schiffermüller], 1775). HÜBNER did not publish any text to his Tortrices, but he subsequently (1825: 377) stated that his fig. 19 was synonymous with *Tortrix similana* [Denis & Schiffermüller]. Thus it seems that *asseclana* fig. 19 represents a separately established specific name, and it becomes both a junior synonym of *similana* [Denis & Schiffermüller] and a junior primary homonym of *asseclana* [Denis & Schiffermüller]. HÜBNER (1825 loc. cit.) stated that his fig. 194 represented *asseclana* [Denis & Schiffermüller], but this is a misidentification.

In order to definitely fix the identity of *Tortrix asseclana* [Denis & Schiffermüller], a neotype from Austria has been designated. It is labelled: 1) 14.6.1978 Hundesheimer Berg S Porta hungarica, Austria inf., F. Kasy

- 2) 5999 & Mus. Vind. Gen. Präp. *virgaureana* (genitalia mounted on slide)
- 3) Neotype & Tortrix asseclana [Denis & Schiffermüller], 1775, design. L. Aarvik 1986.

The genitalia of the neotype agrees with Kuznetsov's (1978, fig. 298.1) figure of *Cnephasia virgaureana* (Treitschke). The neotype is kept in the collection of the Natural History Museum in Vienna.

Pristerognatha fuligana ([DENIS & SCHIFFERMÜLLER], 1775)

Tortrix fuligana [Denis & Schiffermüller], 1775: Ankündung syst. Werkes Schmett. Wienergegend: 132.

The identity of *Tortrix fuligana* [Denis & Schiffermüller] has been a mystery for 200 years. Werneburg (1864: 555) stated that Fischer von Röslerstamm who studied the collection of Denis & Schiffermüller could not find any specimen of *fuligana* there.

HÜBNER [1799] (fig. 109) figured a *Tortrix fuligana*, and subsequent authors have based their interpretation of *fuligana* on this. In HÜBNER's subsequent work (1825), where he associated the names given by other lepidopterists with the figures on his plates, he did not refer to DENIS & SCHIFFERMÜLLER. This indicates that *fuligana* HÜBNER is a separately established specific name. *Tortrix fuligana* HÜBNER, [1799] thus becomes a junior primary homonym of *Tortrix fuligana* [DENIS & SCHIFFERMÜLLER], 1775. Dr. J. D. BRADLEY who has examined the original pattern plate of HÜBNER in the British Museum, kindly informs me that fig. 109 in his opinion probably represents *Neosphaleroptera nubilana* (HÜBNER, [1799]). The original plate is much lighter grey than in the published work and compares well with the variable *nubilana*.

Werneburg (1864: 555) suggested that *fuligana* [Denis & Schiffermüller] might be *Neosphaleroptera nubilana* (Hübner). But he was not certain, and as introducing *fuligana* [Denis & Schiffermüller] as a senior synonym of *nubilana* Hübner would upset the well established nomenclature of this species, it is a very unsatisfactory solution.

The name fuligana has been applied to four species of Tortricidae:

- 1. The *Impatiens*-feeder = *Argyroploce fuligana* sensu Kennel 1913 pl. 16 fig. 48; *Olethreutes fuligana* sensu Hannemann 1961 pl. 22 fig. 10, Bentinck & Diakonoff 1968; *Pristerognatha fuligana* sensu Kuznetsov 1978 fig. 379.2, Oku 1979, Razowski 1983.
- 2. Lobesia abscisana (Doubleday, 1849) = Tortrix fuligana sensu Haworth [1811]; Polychrosis fuligana sensu Kennel 1916 pl. 18 fig. 45, 46; Lobesia fuligana sensu Hannemann 1961 pl. 22 fig. 4, Bentinck & Diakonoff 1968, Kuznetsov 1978 fig. 394.4.
- 3. Endothenia pullana (Haworth, [1811]) = Argyroploce fuligana sensu Pierce & Metcalfe 1922 pl. 16, Jäckh 1959; Endothenia fuligana sensu Bradley et al. 1972, Leraut, 1980.
- 4. Endothenia ustulana (Haworth, [1811]) = Penthina fuligana sensu Barrett 1905.

It is herewith proposed to restrict the use of the name *fuligana* to the *Impatiens*-feeder, currently in the combination *Pristerognatha fuligana* ([Denis & Schiffermüller], 1775). It cannot be proved that this interpretation of *Tortrix fuligana* [Denis & Schiffermüller] is correct, but as it is likewise impossible to prove that it is not, and as this solution will result in

stability of the nomenclature of the other species involved, it seems the best. The nomenclature of *Lobesia abscisana* (Doubleday, 1849) and *Endothenia pullana* (Haworth, [1811]) is well established (Bradley et al. 1979) and will not be disrupted if the name *fuligana* is used in the sense proposed here.

In order to definitely fix the identity of *Tortrix fuligana* [Denis & Schiffermüller], a neotype from Austria has been designated. It is labelled: 1) Austr. inf., Klosterneuburg 17/6-19 Kunau 2) Neotype & *Tortrix fuligana* [Denis & Schiffermüller], 1775, design. L. Aarvik 1986.

The genitalia of this species is figured by e.g. KUZNETSOV (1978, fig. 379.2) and RAZOWSKI (1983, fig. 74 + 155). The neotype is kept in the collection of the Natural History Museum in Vienna.

OKU (1979) synonymized the nearctic *Olethreutes agilana* (CLEMENS, 1860) with *Pristerognatha fuligana* ([DENIS & SCHIFFERMÜLLER]). However, MILLER (1985) showed that *agilana* is a distinct species closely related to *fuligana*.

Selenodes karelica (TENGSTRÖM, 1875) stat. nov., comb. nov.

Tortrix textana Frölich, 1828: Enum. Tortr. Württ.: 54 nom. praeocc. Penthina postremana var. karelica Tengström, 1875: Notis. Sällsk. Fauna Flora Fenn. 14: 35.

Penthina norvegicana Schøyen, 1887: Forh. Vidensk. Selsk. Christ. 3: 14 nom. nudum.

Tortrix textana Frölich is a junior primary homonym of Tortrix textana Hübner, [1799] which is a junior synonym of Pyralis corylana Fabricius, 1794, at present used in the combination Pandemis corylana (Fabricius, 1794).

Penthina postremana var. karelica Tengström can be treated as a subspecific name. Tengström referred to it as a "local form" which indicates that it is not just an aberration of postremana, but that it is geographically distinct.

TENGSTRÖM based his description on a female collected by GÜNTHER near Dworetz which is in the USSR. The type of *karelica* has not been found at the zoological museums in Helsinki or Leningrad where it, according to KYRKI (pers. comm.), ought to have been. The identity of *karelica* has remained doubtful until now. The present interpretation is based on information given in the original description. There seem to be three species on which Tengström could have based his description of *karelica*, viz. *Pristerognatha penthinana* (GUENÉE, 1845) (*postremana* LIENIG & ZELLER, 1846 is a synonym of this species), *P. fuligana* ([Denis & Schiffermüller], 1775) and *Tortrix textana* Frölich, 1828. One of the distinguishing characters of

karelica which Tengström mentioned is the unicolorous dark blackish brown hindwings with concolorous cilia. Both penthinana and fuligana have the hindwing cilia partly dark and partly white. In textana the colour of the hindwing cilia varies. In some specimens they are white, in other specimens they are all as dark as the wing, agreeing with the description of karelica. Tengström also mentions that karelica has the costal strigulae running more vertically than postremana. This character excludes fuligana which has the costal strigulae very oblique. The type locality of karelica is within the range of textana (Kyrki pers. comm.). These facts strongly suggest that karelica is conspecific with textana. This interpretation was also suggested by Krogerus (1947).

OBRAZTSOV (1960) placed *Penthina norvegicana* SCHØYEN, 1887 as a junior synonym of *Tortrix textana* FRÖLICH. However, a closer study of SCHØYEN's work reveals that his "description" of *Penthina norvegicana* does not fulfil the requirements of the Code. SCHØYEN gives no definition or description of his taxon, nor does his paper contain any reference to a previously published description or definition (Int. Code zool. Nom., Art. 12).

The type-species of *Selenodes* Guenée, 1845 is *Tortrix textana* Frölich, 1828, by subsequent designation by Desmarest, 1857, in Chenu: Encycl. Hist. nat. (Papillons nocturnes): 223.

Selenodes dalecarliana Guenée, 1845 was designated by Fernald, 1908: Genera Tortricidae, Types: 29, 57. When Obraztsov (1960) erected the genus Froelichia for Tortrix textana Frölich, he was not aware of the designation by Desmarest. Froelichia Obraztsov is a junior objective synonym of Selenodes Guenée.

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References

BARRETT, C. G. 1904-05. The Lepidoptera of the British Islands. Vol. 10, 381 pp., pls. 425-469. London.

BENTINCK, G. A. & DIAKONOFF, A. 1968. De Nederlandse Bladrollers (Tortricidae). *Monogr. Ned. ent. Ver.*, **3**, 201 pp., 99 pls. Amsterdam.

- Bradley, J. D., Fletcher, D. S. & Whalley, P. E. S. *In* Kloet, G. S. & Hincks, W. D. 1972. A Check List of British Insects. 2. edn. Part 2: Lepidoptera. *Handbk. Ident. Br. Insects*, 11 (2), viii + 153 pp.
- Bradley, J. D., Tremewan, W. G. & Smith, A. 1979. British Tortricoid Moths. Tortricidae: Olethreutinae. The Ray Society, vol. 153. viii + 336 pp., 43 pls. London.
- HANNEMANN, H. J. 1961. Kleinschmetterlinge oder Microlepidoptera. I. Die Wickler (s. str.) (Tortricidae). *Tierw. Dtl.*, **48**. xi + 233 pp., 22 pls.
- HERRICH-SCHÄFFER, G. A. W., 1847-55. Systematische Bearbeitung der Schmetterlinge von Europa. Vol. 4. Die Zünsler und Wickler. 288 pp., 58 pls. Regensburg.
- HÜBNER, J. 1799-[1833]. Sammlung europäischer Schmetterlinge. Horde 7, Tortrices. 53 pls. Augsburg.
- HÜBNER, J. 1825. Verzeichnis bekannter Schmettlinge [sic]. Augsburg, pp. 305-431.
- JÄCKH, E. 1959. Bemerkenswerte Tortriciden-Funde im nordwestdeutschen Flachland. *Bombus*, 2: 70-72.
- KENNEL, J. 1908-21. Die Palaearktischen Tortriciden. *Zoologica*, **21** (**54**). 742 pp., 24 pls. Stuttgart.
- Krogerus, H. 1947. Zwei neue Kleinschmetterlinge aus Fennoskandien. *Notul. ent.*, 27: 4-8.
- KUZNETSOV, V. I. 1978. Tortricidae. *In*: Medvedeva, G. S. (ed.). Lepidoptera. Keys to the Insect Fauna of the European part of USSR. 4. [in Russian]. *Opred. Fauna SSSR*, 117. 712 pp.
- LERAUT, P. 1980. Liste systématique et synonymique des Lépidoptères de France, Belgique et Corse. Suppl. Alexanor, Bull. Soc. ent. Fr., 334 pp. Paris.
- MILLER, E. W. 1985. Nearctic *Olethreutes*: Five new synonymies, two revised statuses, and notes (Lepidoptera: Tortricidae). *Proc. entomol. Soc. Wash.*, 87: 408-417.
- OBRAZTSOV, N. S. 1957. Die Gattungen der Palaearktischen Tortricidae. I. Allgemeine Aufteilung der Familie und die Unterfamilien Tortricinae und Sparganothinae. 3. Fortsetzung und Schluss. *Tijdschr. Ent.*, **10**: 309-347.
- OBRAZTSOV, N. S. 1960. Beitrag zur Klassifikation der mitteleuropäischen Olethreutinae (Lepidoptera: Tortricidae). Beitr. Ent., 10: 459-485.
- OKU, T. 1979. Notes on a Tortricid Moth, *Pristerognatha fuligana* (Hübner). Kontyû, 47: 616-617.
- PIERCE, F. N. & METCALFE, J. W. 1922. The Genitalia of The Group Tortricidae of the Lepidoptera of the British Islands. xxii + 101 pp., 34 pls. Oundle.
- POWELL, J. A. 1983. Tortricidae. *In*: Hodges, R. W. et al. (eds.). Check List of the Lepidoptera of America North of Mexico. xxiv + 284 pp. London.
- RAZOWSKI, J. 1983. Motyle (Lepidoptera) polski. Część VI. Olethreutinae: Olethreutidii. *Monografie Fauny Pol.*, 13. 177 pp., 11 pls. Warszawa, Krakow.
- Werneburg, A. 1864. Beiträge zur Schmetterlingskunde. Vol. 1. viii + 595 pp. Erfurt.